

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



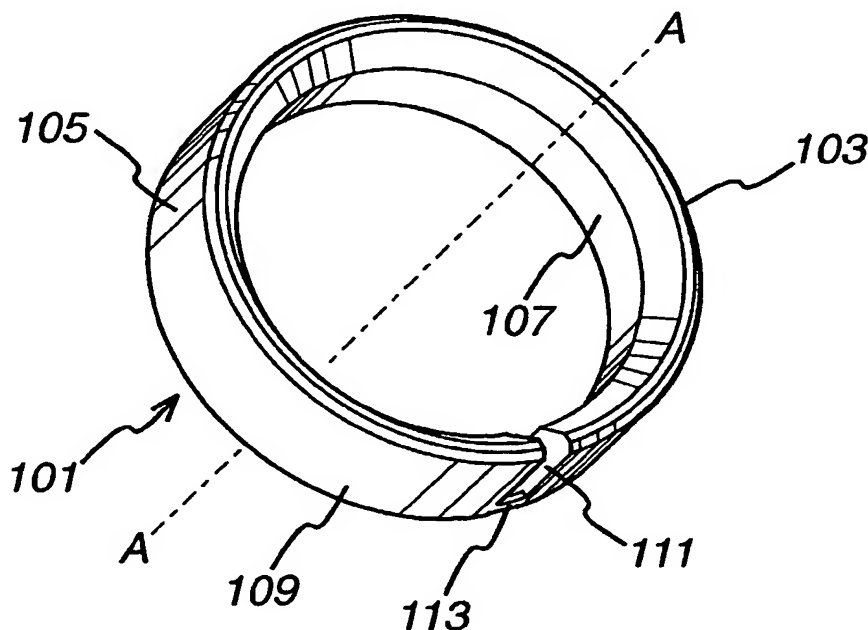
(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/065224 A3

- (51) International Patent Classification⁷: **F16B 21/18**, 39/00, 2/20, A61M 15/00, B65D 83/14
- (21) International Application Number: **PCT/EP2004/000663**
- (22) International Filing Date: 19 January 2004 (19.01.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0301366.1 21 January 2003 (21.01.2003) GB
- (71) Applicant (for all designated States except US): **GLAXO GROUP LIMITED** [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **GODFREY, James, William** [GB/GB]; GlaxoSmithKline, Park Road, Ware, Hertfordshire SG12 0DP (GB).
- (54) Title: **FIXATION DEVICE**
- (74) Agent: **GIDDINGS, Peter, John**; GlaxoSmithKline, Corporate Intellectual Property (CN925.1), 980 Great West Road, Brentford, Middlesex TW8 9GS (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]



(57) Abstract: A fixation device (101) which is for fixing together two parts (100,110) of a multi-part assembly and which has a ring-like body (103) which is movable from a manufactured state, in which the body is manufactured with an endless angular extent and a weakened zone (113) therein, and a use state, in which the ring-like body is split (115) at the weakened zone.

WO 2004/065224 A3



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
16 September 2004

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/000663

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16B21/18 F16B39/00 F16B2/20 A61M15/00 B65D83/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16B A61M B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/28887 A (GODFREY JAMES WILLIAM ;JONES ANTHONY PATRICK (GB); RAND PAUL KENNE) 26 April 2001 (2001-04-26)	1-18,20
X	abstract; figures page 3, line 25 -page 4, line 13 page 7, line 1-4 page 7, line 28 -page 8, line 2 page 10, line 25 -page 12, line 9	19
A	DE 887 716 C (HOUBENWERKE) 27 August 1953 (1953-08-27) the whole document	1-5

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

19 July 2004

Date of mailing of the international search report

28/07/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Lager, J

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/000663

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>"WALDES TRUARC RETAINING RING" MACHINE DESIGN, PENTON, INC. CLEVELAND, US, vol. 61, no. 1, 12 January 1989 (1989-01-12), page 161 XP000045387 ISSN: 0024-9114 the whole document</p> <p>---</p>	1-5
A	<p>US 3 853 413 A (PARRAN M) 10 December 1974 (1974-12-10) the whole document</p> <p>---</p>	
A	<p>US 1 638 209 A (CHARLES NIEBUHR WILLIAM) 9 August 1927 (1927-08-09) the whole document</p> <p>-----</p>	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/000663

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 21-23
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 21-23

Claims 21-23 make references to the description and the drawings, Rule 6.2(a) PCT.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/000663

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0128887	A	26-04-2001	AT 259744 T	15-03-2004
			AU 762744 B2	03-07-2003
			AU 7918100 A	30-04-2001
			BR 0014363 A	11-06-2002
			CA 2387160 A1	26-04-2001
			CN 1379725 T	13-11-2002
			DE 60008402 D1	25-03-2004
			WO 0128887 A1	26-04-2001
			EP 1220802 A1	10-07-2002
			JP 2003512157 T	02-04-2003
			US 2003136800 A1	24-07-2003
			ZA 200201608 A	26-05-2003
			AU 8582501 A	30-01-2002
			BR 0112481 A	22-07-2003
			CA 2415297 A1	24-01-2002
			CN 1443081 T	17-09-2003
			WO 0205879 A1	24-01-2002
			EP 1301230 A1	16-04-2003
			JP 2004503338 T	05-02-2004
			US 2003183226 A1	02-10-2003
DE 887716	C	27-08-1953	NONE	
US 3853413	A	10-12-1974	NONE	
US 1638209	A	09-08-1927	NONE	